

example, TS 125 322 v.3.1.2 fails to disclose or teach “checking whether the previous PDU has the first length indicator indicating the end of the last segment of the SDU” and “inserting in the current PDU a second length indicator indicating that the last segment of the SDU ends at the end of the previous PDU according to the checking result only if the previous PDU does not have the first indicator.” and the combination thereof, as recited in claim 11, and means for or steps of “including a second indicator into a following data unit of the lower layer when an end of the last segment of the data unit of the upper layer is included within the current data unit of the lower layer and a first indicator indicating the end of the last segment of the data unit of the upper layer is not included within the current data unit of the lower layer, wherein the second indicator indicates that the end of the last segment of the data unit of the upper layer is included within the current data unit of the lower layer” and the combination thereof, as recited in claims 30 and 43. (Emphasis added).

TS 125 322 v.3.1.2 relates to a length indicator (hereinafter, referred to as ‘second LI’) in the next PDU indicating that the end of last segment of the SDU exactly matches at the end of the current PDU. However, the second LI of TS 125 322 v.3.1.2 is inserted even though the current PDU has a length indicator (hereinafter, referred to as ‘first LI’) indicating the end of the last segment of the SDU. In other words, in TS 125 322 v.3.1.2, the second LI is inserted into the next PDU in all the cases where the end of the SDU exactly matches the end of the current PDU, i.e., only one requirement/condition for inserting the second LI. TS 125 322 v.3.1.2 has a problem that the second LI is unnecessarily inserted into the next PDU when the current PDU

has the first LI. **TS 125 322 v.3.1.2** is the same scheme of inserting LIs as the related art of the present invention. See paragraphs [4]-[14] of the specification.

However, in claims 11, 30, and 43, another requirement is necessary to be satisfied to insert the second LI into the next PDU. See emphasis added text of claims 11, 30, 43. There is no disclosure or teaching in **TS 125 322 v.3.1.2** regarding the other requirement/condition for inserting the second LI into the next PDU or data unit.

Further, **EN 301 349 v.7.5.0** fails to disclose or teach the features found lacking in **TS 125 322 v.3.1.2**. Although **EN 301 349 v.7.5.0** discloses various length indicators, there is no LI having the features of second LI, as recited in the claims.

In **EN 301 349 v.7.5.0**, methods regarding how service data units of an upper layer having variable size can be included in RLC data blocks comprising N octets are described. According to B. 1 Example 1, a first part of LLC PDU 1 has been already included in a previous RLC data block such that the remaining eleven octets have to be included in the RLC data block shown in Figure B.1. In addition, a length indicator is included in the length indicator portion that indicates that the length of the remaining part of the LLC PDU 1 is eleven octets.

The next LLC PDU 2 consisting of 26 octets can be completely included in RLC data block of Figure B.1. To indicate which octets of the RLC data blocks belong to LLC PDU 2, a corresponding length indicator is included in the length indicator portion. The remaining part of the RLC data block, i.e., octet 42, to octet N is filled with a first portion of LLC PDU 3. Since

the last octets of the RLC data block belong to a LLC PDU that extends into the next RLC data block, no length indicator is necessary for the LLC PDU 3 in the RLC data block shown in Figure B.1.

However, if other than in Example 1, the number of octets of LLC PDU 2 is equal to N-41, the following problem occurs. If all octets of the LLC PDU 3 are included in the remaining portion of the RLC data block shown in Figure B.1, i.e., the LLC PDU 3 completely fills the remaining part of the RLC data block, there is no octet left for including a length indicator in this RLC data block that is necessary to indicate that LLC PDU 3 ends in this data block. If the length indicator for LLC PDU 3 is omitted, it is supposed that LLC PDU 3 is continued in the following RLC data block. If a length indicator is included in the RLC data block shown in Figure B.1, it is supposed that LLC PDU 3 is completed in the current RLC data block, although it continues into the next RLC data block.

To cope with the above-described problem of Figure B.1, a solution is provided in connection with B.2 Example 2 on page 196. In this case, a length indicator that is set to "0" is included in the first or current data block indicating that the respective LLC PDU is continued in the following RLC data block. In the following data block, a length indicator set to "1" is included indicating that the respective LLC PDU is completed in the following RLC data block.

In section B.2 Example 2, Figure B.2, the function of 'Length indicator=0' in the RLC data block N is just to indicate that the LLC PDU does not end within the current RLC data

block. On the contrary, the second LI of the embodiment indicates that the end of last segment of the SDU is included at the end of the current PDU. In section B.2 Example 2, Fig. B.2, the 'Length indicator=0' in the RLC data block N cannot be omitted since LLC PDU1 does not begin in the RLC data block N. On the other hand, the second LI of the embodiment can be omitted when the end of last segment of the SDU is included in the current PDU and when the current PDU has the first LI.

Both the function of 'the Length indicator=0' and the reason of omitting 'the Length indicator=0' are opposite from those of the second LI in the embodiment of the invention. Moreover, in EN 301 349 v.7.5.0 two indicators are necessary when the end of a LLC PDU would fit within the RLC data block, but the addition of the length indicator octet to indicate the LLC PDU boundary in the current RLC data block causes the LLC PDU to extend into the next RLC data block.

EN 301 349 v.7.5.0 fails to disclose or teach the features and the combination thereof, as recited in claims 11, 30 and 43. There is no disclosure or teaching of "checking whether the previous PDU has the first length indicator indicating the end of the last segment of the SDU" and "inserting in the current PDU a second length indicator indicating that the last segment of the SDU ends at the end of the previous PDU according to the checking result only if the previous PDU does not have the first indicator." and the combination thereof, as recited in claim 11, and means for or steps of "including a second indicator into a following data unit of the lower layer when an end of the

last segment of the data unit of the upper layer is included within the current data unit of the lower layer and a first indicator indicating the end of the last segment of the data unit of the upper layer is not included within the current data unit of the lower layer, wherein the second indicator indicates that the end of the last segment of the data unit of the upper layer is included within the current data unit of the lower layer” and the combination thereof, as recited in claims 30 and 43. (Emphasis added).

A *prima facie* case of obviousness has not been established, and withdrawal of this Section 103 rejection is respectfully requested.

Claims 31-39, 41-42, 44-52, 54, and 55 stand rejected solely based upon their dependence from the rejected claims. It is respectfully submitted that both of the applied references fail to disclose or teach the features for the reasons set forth above, and further fail to disclose or teach the additional features and the combination thereof recited in these dependent claims. Hence, withdrawal of this rejection is respectfully requested.

In view of the foregoing amendments and remarks, it is respectfully submitted that the application is in condition for allowance. Favorable consideration and prompt allowance are earnestly solicited.

If the Examiner believes that any additional changes would place the application in better condition for allowance, the Examiner is invited to contact the undersigned attorney, **Daniel Y.J. Kim**, at the telephone number listed below.

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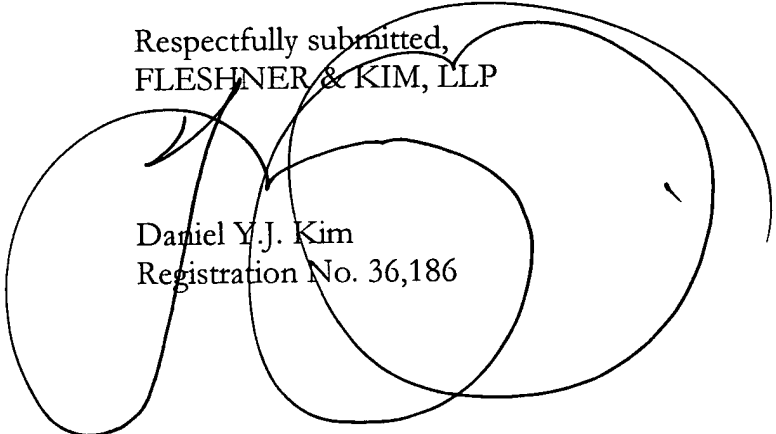
Docket No. **HI-0035A**

Reply to Office Action of **December 1, 2005**

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this, concurrent and future replies, including extension of time fees, to Deposit Account 16-0607 and please credit any excess fees to such deposit account.

Respectfully submitted,  
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